

A NEW SPECIES OF *PINGUICULA* (LENTIBULARIACEAE) FROM MEXICO

H. Luhrs

Krayenhoffstr. 51, 1018 RJ Amsterdam, HOLLAND

ABSTRACT

A new species of *Pinguicula* from México, *P. gigantea*, is described and illustrated. It belongs in subgen. *Isoloba*, section *Agnata*, and is related to *P. agnata* Casper.

KEY WORDS: Lentibulariaceae, *Pinguicula*, Flora of México

After many recent publications of new *Pinguicula* species from México, in 1987 yet another species was collected in the state of Oaxaca by A. Lau. This species was later cultivated from seed, and examination of cultivated plants and habit photographs from the collector has necessitated the description of a new species.

***PINGUICULA GIGANTEA*** Luhrs, *spec. nov.* (Figure 1). TYPE: MEXICO. Oaxaca: Steep slopes near San Bartolomé Ayautla, 500-800 m, coll. 1987, A.B. Lau *s.n.*; cult. Aug-Sep 1995 no. 9505 (HOLOTYPE: TEX!; Isotype: L!).

Herba perennis. Rhizoma simplex brevis, radicibus adventitiis numerosis filiformibus. Folia radicalia rosulata, plus minusve uniformia, semierecta, laete viridia, utrinque glandulosa, glandulis sessilibus et glandulis stipitatis dense vestita; "hiemalia" 6-9, oblongo-obovata, 35-60 mm longa, 24-38 mm lata; "aestivalia" 10-13, obovata vel oblongo-obovata, apice rotundata vel obtusa, margine non involuta vel parum revoluta, 60-145(-165) mm longa, 40-70(-80) mm lata, basi 6-9 mm crassa. Hibernacula nulla. Pedicelli 1-4(-5) erecti, pallide viridi, glandulis stipitatis dense obsiti, (105-)150-185 mm alti, uniflori. Flores 28-33 mm longi (calcare incluso). Calyx bilabiatus, extus et intus glandulis stipitatis dense obsitus; labium superum trilobum, lobis ovatis, 3-4 mm longis, 3-4 mm latis; labium inferum bilobum, lobis anguste ovatis vel ellipticus, 2.5-3.0 mm longis, 2 mm latis. Corolla subisoloba, pallide purpureo-violacea vel albido-lilacina (RHS purple-violet 82D), margine violacea, extus glandulis stipitatis disperse vestita; lobis subaequalibus,

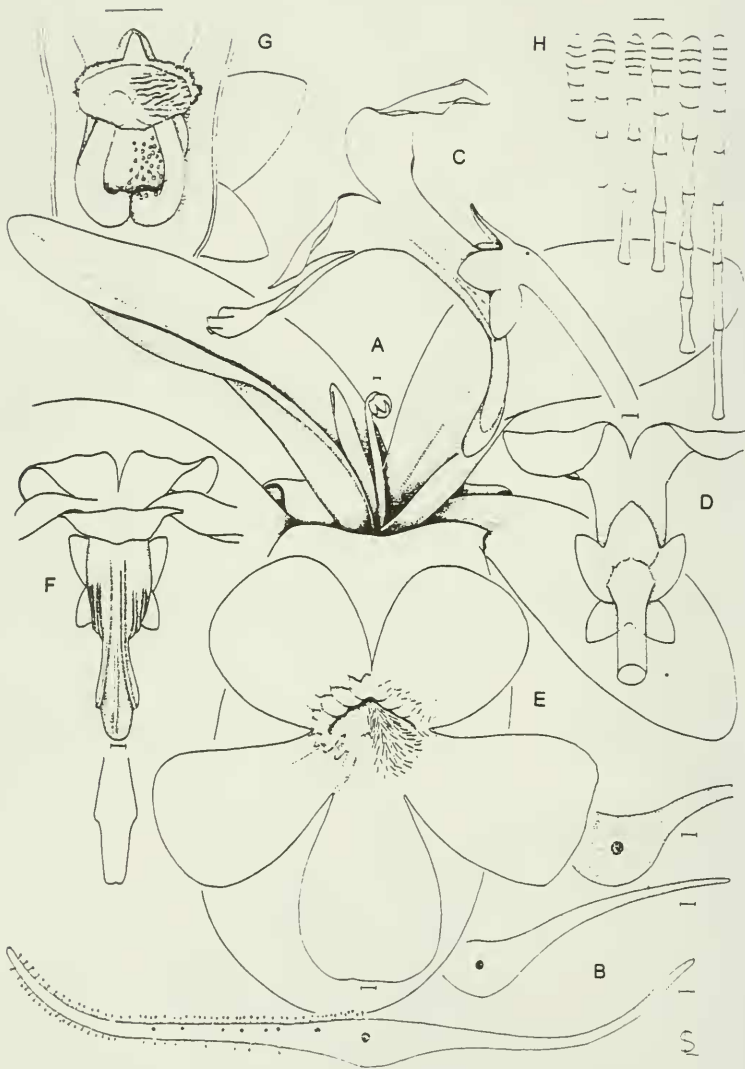


Figure 1. *Pinguicula gigantea*. A. habit; B. transverse sections of the leaf; C. flower, lateral view; D. calyx; E. corolla; F. corolla tube and spur; G. stigma, stamen, and ovary; H. hairs from right to left in pairs; lower petal, corolla tube entrance, tube interior. Scale bars A-G. 1 mm, H. 0.1 mm.

oblongo-obovatis vel subcuneatis, apice rotundatis vel obtusis, 10-13 mm longis, 5-9 mm latis, basi pilis longis cylindricis disperse vestitis. Tubus subcylindricus, laete viridis, basin versus leviter angustatus, violaceo-striatus, 9-11 mm longus, 4-5 mm latus, extus glandulis stipitatis disperse obsitus, intus pilosus, pilis longis cylindricis et pilis longis clavatis subcapitatis, sine palato. Calcar subcylindricum, obtusum, anguste angulato-ovatum, 5-8 mm longum, 1.5-2.0 mm latum, cum tubo angulum obtusum (130-140°) formans. Ovarium subglobosum, glandulis stipitatis parvulis obsitum. Stigma bilabiatum, album, labio infero superiorem superanti, suborbiculato, fimbriato. Capsula subglobosa  $\pm$  4 mm longa, glandulis stipitatis disperse obsita. Semina numerosa, scobiformia minutissima. Florescentia  $\pm$  I-IV- (?)

Perennial herb. Stem short, with numerous adventitious fibrous roots. Leaves rosulate, more or less uniform, semi-erect, bright green on both sides, densely covered with sessile and stipitate glands; the winter leaves 6-9, oblong-obovate, 35-60 mm long, 24-38 mm wide; the summer leaves 10-13, obovate or oblong-obovate, apex rotundate or obtuse, margin not involute or lightly revolute, 60-145(-165) mm long, 40-70(-80) mm wide, 6-9 mm thick at the base. Hibernaculum absent. Scapes 1-4(-5), erect, pale green, densely stipitate glandular, (105-)150-185 mm tall, 1-flowered. Flowers 28-33 mm long (including the spur). Calyx bilabiate, both surfaces densely stipitate glandular; upper lip 3-lobed, the lobes ovate, 3-4 mm long, 3-4 mm wide; lower lip 2 lobed, the lobes narrowly ovate or elliptic, 2.5-3.0 mm long, 2 mm wide. Corolla subsolobate, pale purple-violet or whitish-lilac (RHS purple-violet 82D), margin violet, the outer surface dispersedly stipitate glandular; the lobes subequal, oblong-obovate or subcuneate, apex rotundate or obtuse, 10-13 mm long, 5-9 mm wide, dispersedly covered with long cylindrical hairs at the base. Tube subcylindrical, bright green, lightly narrowing towards the base, with fine linear violet markings, dispersedly stipitate glandular, 9-11 mm long, 4-5 mm wide, the inside covered with long cylindrical and clavate subcapitate hairs, palate absent. Spur subcylindrical, obtuse, narrowly angular-ovate, 5-8 mm long, 1.5-2.0 mm wide, forming an obtuse angle (130-140°) with the tube. Ovary subglobular, with very small stipitate glands. Stigma bilabiate, whitish, lower lip much larger than the upper lip, suborbiculate, margin fimbriate. Capsule subglobular, ca. 4 mm long, dispersedly stipitate glandular. Seeds numerous, minute. Flowering  $\pm$  January-April (?).

This species belongs to the section *Agnata*, characterized by uniform leaves, corollas with nearly equal lobes, a long cylindrical tube, the absence of a palate, and a cylindrical spur forming a distinct angle with the tube, being longer than wide. Within this section it is related to *Pinguicula agnata* of the subsect. *Agnata*, due to similar characteristics of the floral parts, but differs from this species by having somewhat smaller calyx lobes, a larger and pale purple-violet corolla, and a longer angular-ovate spur. One of the most characteristic features lies in the size of its leaves, and the fact that these are densely glandular on both surfaces. This peculiar property is known only in a few other species within the genus, but with tiny stipitate glands and rather sparsely scattered, mainly on the midrib on the lower surface of the leaf. The uniform

summer and winter leaves of *P. gigantea* differ mainly in size, and lacking a distinct winter rosette, whereas those of *P. agnata* are to a much lesser degree "uniform" (Casper 1966), forming an almost distinct winter rosette. Because of this, it does not conform totally to the features of the section *Agnata*, and it is possible that it belongs elsewhere. This will be discussed in a future revision of the Mexican species.

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